GEOGRAPHIC NEWS BULLETIN

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THE NATIONAL GEOGRAPHIC SOCIETY

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General Headquarters, Washington, D. C.

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Note to Teachers—The next issue of the Geographic News Bulletin will be upon the reopening of schools in October. The Bulletin will not be issued during the summer vacation months.

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SPEARING PRAWNS SHRIMP-LIKE CREATURES WHICH RESEMBLE OUR HARD-SHELLED CRABS, FOUND IN THE STREAMS OF TAHITI. (See Bulletin No. 2)

HOW TO OBTAIN THE BULLETIN

The Geographic News Bulletin is published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 9, 1922.

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Across Europe by Water

INSTINCTIVELY one links the Mississippi and the Missouri rivers; years to come may find us regarding the Danube and the Rhine in the same way, if the plan is effected to cut a steamship waterway from the North Sea to the Black Sea.

As for a "waterway across Europe"—such a waterway already exists, though travelers through a small section of it might have to resort to very small craft. Information about the condition of the canalized portion of this trans-European water route is not readily available, since the linking of the Rhine and the Danube occurs in Germany.

New Conceptions of Europe

The very fact that we classify the legend-laden Rhine in one mental pigeonhole, and the romantic, castled Danube in another, makes the announcement of a "waterway across Europe" come upon us with the impact of a fresh idea. Just as war brought about political changes in Europe, so peace is bringing economic changes. Hence, if Germany carries out the project she is considering, we will have to think of a Europe cut through with a water route, just as we have learned to think of a Europe with Turkey almost gone, a Poland with a boundary, and the new names of Czechoslovakia and Jugo-Slavia conspicuous upon its map.

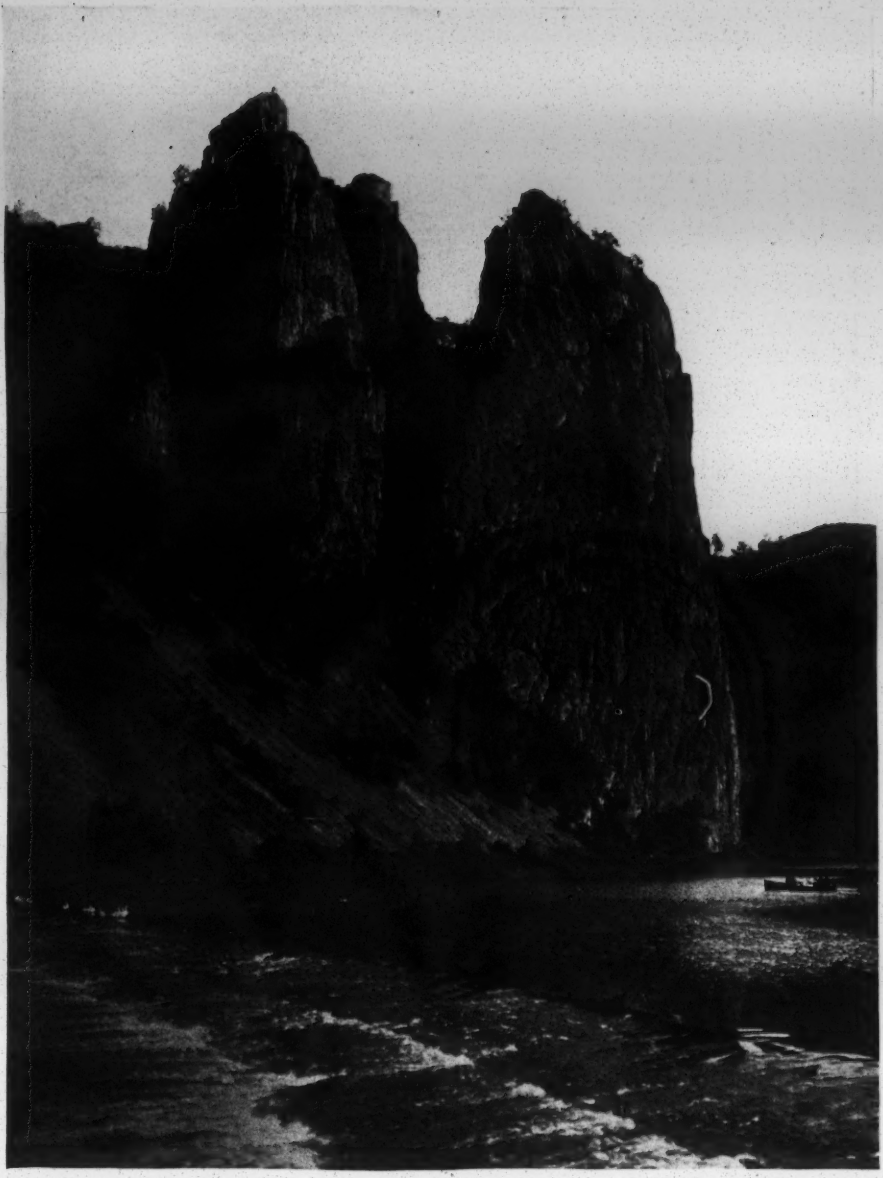
A present water route across Europe—and others are possible with very short portages—lies along the Rhine to Mainz, up the Rhine's tributary, Main, to Bamberg, thence through the Regnitz, into the Ludwig Canal to the Altmuhl, which empties into the Danube at Kelheim.

Where Two Rivers are Linked

In your mind's eye, even without a map, you can recall two focal points of this route, Frankfort, on the Main, and Ratisbon (or Regensburg) on the Danube. Vessels of more than 1,000 tons can go up the Rhine and Main to Frankfort; and vessels between 400 and 1,000 tons can go up the Danube as far as Ratisbon. Kelheim, the Danube end of the small river-canal link with the Rhine, is only 12 miles southwest of Ratisbon. The improvement of the Danube to Kelheim would offer no great difficulties. Above Frankfort, to Wurzburg, vessels between 400 and 1,000 tons can traverse the Main.

The trouble with this route, even with channels deep enough to carry larger steamers from Wurzburg to Ratisbon, is the extremely circuitous course between the Rhine and the Danube. From Frankfort the route forms an almost perfect "W" and then trails off like a careless flourish through Nuremberg to Ratisbon. A projected shortening of this route contemplates passing the confluence of the Rhine and the Main, continuing up the Rhine to Mannheim, thence through the Neckar and into the proposed canal from that point to connect with the Danube near Offingen.

Completion of the project for this deep waterway across Europe would make the Rhine-Danube route one of the most important commercial highways of the world—ranking in economic importance with the Panama and Suez canals, and



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A PICTURESQUE CLIFF OF PORPHYRY, NEAR METZ. (See Bulletin No. 1)

The Rhine rises in southern Switzerland and flows in a general northwest direction through western Germany and Holland to the North Sea. Commercially it was ranked, before 1914, as the most important river in Europe, partly because its valley was densely populated with busy industrial cities. Canals connect the Rhine not only with the Danube, but also with the Meuse, and other important rivers. Note on your map the important cities through which the Rhine passes.

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France in the South Seas

WHILE other nations have acquired islands of commercial worth and military advantage in the Pacific, France has accrued the islands of romance and poetry—a fact in keeping with national character.

To France belong Tahiti and the Marquesas group, immortalized by Stevenson, Melville, and latterly popularized by a coterie of South Sea writers. She holds new Caledonia, the largest island except New Zealand in the South Pacific; and also large numbers of the smallest and least known of the land points that seem like tiny pin pricks on a map of the vast ocean expanse east of Australia. None of them, except the Marquesas group, lies beyond parallels of latitude which pierce Sydney and the northernmost point of Australia.

Holdings in Three Zones

A catalogue of French holdings, by island groups, would sound formidable, and a list of them would mount into the hundreds. Yet exclusive of New Caledonia, the land area of all the South Sea French possessions is scarcely more than 1,500 square miles, and they fall readily into three zones, with a fourth, New Hebrides, in which France divides sovereignty with Great Britain.

Directly east of Queensland, Australia, is the first of these easily remembered zones, which is dominated by mountainous New Caledonia, a Siberia of the South Seas, both in respect to its one time use as a penal colony, and in its future economic promise. Within this first circle of French possessions also are the low-lying Loyalty Islands, with their Christianized Melanesian cannibals; the Isle of Pines, with its coral caves and gaunt, sentinel-like trees; the barren Huons, and several lesser groups.

Northwest of New Caledonia are the New Hebrides, jointly administered by France and Great Britain. Recent years have brought many adventurers and colonists to the South Seas, and the white population of many islands is extremely variable. As recently as 1908 there were only 300 French settlers and fewer than 200 Englishmen in the New Hebrides. And the majority of the latter were missionaries.

"Siberia of the South Seas"

Since then New Hebrides has been recognized as a land of promise. Both its beauty and its fertility have been magnets for Europeans. Three crops of maize may be grown in a year, the coffee raised there is esteemed highly, and nowhere else except in the Solomons are coconuts, which spell copra commercially, so prolific. The worst thing about the island is the native population. Murderous, treacherous, vindictive they are called, yet they have one virtue, that of honesty, even to a scrupulous refusal to regard finding as keeping when they pick up the smallest trinket. All such articles are placed in the cleft of a stick and left for the owner to recover them.

Two customs always come to mind in connection with the New Hebrides people. They wind their babies' heads round and round with cord and produce a conical, or egg-shaped skull. Their wives plight their troth, not with a wedding ring, but by having two front teeth knocked out by older women.

Wallis Islands Unimportant

As noted, the New Hebrides "zone" lies northeast and contiguous to the New Caledonia "zone," and again to the northeast, but separated by the British-

in extent with the Mississippi-Missouri channel and the tremendous navigable length of the Amazon. The Black-to-North-Sea trip would be a journey of nearly 2,200 miles. The high water navigation head of the Missouri, in Montana, is 3,500 miles from the Gulf of Mexico, while ocean going steamers may ascend the Amazon for 2,300 miles.

Bulletin No. 1. April 17, 1922.

Note to Teachers

Since both school and public libraries generally have bound volumes of The National Geographic Magazine it has been suggested that references to articles and pictures in The Geographic concerning topics treated in the bulletins would be helpful. Therefore references which may be of use for further study of the subjects, or for source material in project and problem assignments, are contained in the following bibliography extracted from "The Cumulative Index to the National Geographic Magazine":

California

California: Carrying Water Through a Desert: The Story of the Los Angeles Aqueduct. By Burt A. Heimly. Vol. XXI, pp. 568-596, 19 ills., 1 half-page map, July, 1910.

Deserts of Nevada and the Death Valley. By Robert H. Chapman. Vol. XVII, pp. 482-497, 9 ills., 1 chart, Sept., 1906.

The Magic Mountain (Mount Wilson). By J. N. Patterson. Vol. XIX, pp. 457-468, 9 ills., July, 1908.

Mind's-Eye Map of America. By Franklin K. Lane. Vol. XXXVII, pp. 479-518, 25 ills. in black and white, 8 ills. in color, June, 1920.

The New Inland Sea (Salton Sink). By Arthur P. Davis. Vol. XVIII, pp. 36-49, 8 ills., 1 page map, Jan., 1906.

Oil Fields of Texas and California. Vol. XII, pp. 276-278, July, 1901.

Our Big Trees Saved. Vol. XXXI, pp. 1-11, 10 ills., Jan., 1917.

Redwood Forest of the Pacific Coast. By Henry Gannett. Vol. X, pp. 145-159, 6 ills., 1 page map, May, 1899.

Sea Fogs of San Francisco. Vol. XII, pp. 108-114, 5 ills., March, 1901.

Seed Farms in California. By A. J. Wells. Vol. XXIII, pp. 515-530, 14 ills., May, 1912.

Wild Ducks as Winter Guests in a City Park. By Joseph Dixon. Vol. XXXVI, pp. 331-343, 11 ills., Oct., 1919.

Wonderland of California. By Herman Whitaker. Vol. XXVIII, pp. 56-104, 45 ills., July, 1915.

California and Nevada Boundary. Vol. X, pp. 416-417, Oct., 1899.

Lower California: Land of Drought and Desert. Two Thousand Miles on Horseback Through the Most Extraordinary Cacti Forests in the World. By E. W Nelson. Vol. XXII, pp. 443-474, 25 ills., 2 page and half-page maps, May, 1911.

Marquesas

A Vanishing People of the South Seas. The Tragic Fate of the Marquesan Cannibals, Noted for Their Warlike Courage and Physical Beauty. By John W. Church. Vol. XXXVI, pp. 275-306, 22 ills., 1 half-page map, Oct., 1919.

Oregon

Oregon: Is Our Noblest Volcano Awakening to New Life: A Description of the Glaciers and Evidences of Volcanic Activity of Mount Hood. By A. H. Sylvester. Vol. XIX, pp. 515-525, 5 ills., 1 page map, July, 1908.

Our Pacific Northwest. By N. H. Darton. Vol. XX, pp. 645-663, 12 ills., 2 half-page maps, July, 1909.

Scenes Among the High Cascades in Central Oregon. By Ira A. Williams. Vol. XXIII, pp. 578-592, 11 ills., June, 1912.

San Francisco

City of Realized Dreams (San Francisco). By Franklin K. Lane. Vol. XXVII, pp. 169-171, Feb., 1915.

The Wonderland of California. By Herman Whitaker. Vol. XXVIII, pp. 56-104, 45 ills., July, 1915.

Tahiti

Tahiti: Diary of a Voyage from San Francisco to Tahiti and Return, 1901. By S. P. Langley. Vol. XII, pp. 412-429, 10 ills., 2 page and half-page maps, Dec., 1901.

Dream Ship, The: The Story of a Voyage of Adventure More Than Half Around the World in a 47-foot Lifeboat. By Ralph Stock. Vol XXXIX, pp. 1-52, 43 ills., 1 page map, Jan., 1921.

Notes on Tahiti. By Harrison W. Smith. Vol. XXII, pp. 947-963, 17 ills., Oct., 1911.

Tahiti: A Playground of Nature. By Paul Gooding. Vol. XXXVIII, pp. 301-326, 16 ills., 1 half-page map, Oct., 1920.

Washington State

Washington: Great White Monarch of the Pacific Northwest (Mount Rainier). By A. H. Barnes. Vol. XXIII, pp. 593-626, 31 ills., 1 half-page map, June, 1912.

Mind's-Eye Map of America. By Franklin K. Lane. Vol. XXXVII, pp. 479-518, 25 ills., in black and white, 8 ills. in color, June, 1920.

On the Trail of a Horse Thief (Columbia River). By Herbert W. Gleason. Vol. XXXV, pp. 349-358, 6 ills., April, 1919.

Our Pacific Northwest. By N. H. Darton. Vol. XX, pp. 645-663, 12 ills., 2 half-page maps, July, 1909.

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The Pacific Coast: America's New Commercial Battle Front

WITH the awakening of the Far East, the shifting of world interest to the Pacific, and the rapid growth of its commerce, the western rim of the United States where it touches the vastest of the world's oceans is becoming one of the country's most important boundaries.

This rippling line of Pacific surf marks the end of the great Aryan migration, which began ages ago in some mysterious, unknown land of central Asia, surged through the deep valleys of the Himalayas, and has since poured ever westward, making the greater part of the world's history as it went. Across this boundary of white colonization the yellow people of the East have shown themselves ready to flow in a counter current, making complicated racial problems and giving the western boundary an ethnic importance which none of the other three boundaries possesses.

The Pacific's Hidden Harbors

For centuries after the discovery of the Atlantic coast of America, even for centuries after Balboa first looked upon the Pacific at Panama and after his compatriots sailed ships across its vast expanse, the Pacific coast of what is now the United States remained practically unknown. Cabrillo, a Spanish navigator, it is true, entered San Diego Bay, near the present Mexican border, in 1542, and his expedition later sailed north as far as the big bulge in the coast line. But the two priceless features of the Pacific coast were missed: San Francisco Bay, one of the greatest, safest, and best of the harbors of the world; and the entrance to Puget Sound, where land-locked Seattle and a group of other fine harbors now handle a large part of the commerce between America and the Orient.

This failure of early navigators to find San Francisco Bay, though many of them passed up and down the coast, and the Spanish even made a special effort to discover a satisfactory harbor, constitutes one of the mysteries of the Pacific seaboard. Francis Drake is supposed to have anchored in Bodega Bay, about 40 miles northwest of San Francisco, and numerous other explorers visited the tiny Drake's Bay, only 30 miles northwest of the Golden Gate, and the Farralone Islands, an equal distance due west of the entrance of the great bay, but none of these sojourners appears to have obtained the slightest inkling of the existence so close by of the matchless harbor. The bay was first sighted from the land in 1769, more than two hundred years after the Spaniards began their search for a Pacific coast harbor, and it was six years later when the first ship sailed through the Golden Gate.

Where Mountains Meet the Sea

The Pacific coast of the United States is markedly different from the Atlantic coast, especially that part of the latter south of Massachusetts, with its relatively low, sandy shores, and its outlying bulwark of sand islands and sand spits. San Diego Bay, only 10 miles north of the Mexican border, is the only bay of major importance on the Pacific coast of the United States land-locked by a sand spit.

Point Loma, forming the northern boundary of San Diego Bay, however, is a ridge several hundred feet high, and from there northward to Canada, with

owned Fijis, is the Wallis archipelago. This archipelago is the second of the French circles or zones eastward from Australia.

The Wallis Islands have a total area of about 40 square miles and fewer than 5,000 Polynesians, mild-mannered and hard working, live on them. To the south, in this zone, are the Horne Islands, with about a fourth of the people of the Wallis group.

Again moving eastward there lie the last island groups before the vast expanse of almost unbroken ocean between these French possessions and South America. A great heart-shaped zone comprises four archipelagoes. Most numerous, and least important of these groups, are the Tuamotu or Paumotu Islands. North of the Tuamotu double chain are the Marquesas, west of them are the Society Islands which include beautiful Tahiti, and to the southwest are the Tubuai Islands.

Chief Product is Romance

About Tahiti and the Marquesas books have multiplied amazingly within the last year. Tahiti is the most important of the Society Islands, and from its principal city, Papeete, one may see Morea Island, capped by the stately Mauaroa mountain. With its industry of pearl fishing, the famous society of the Areois, who cultivate the arts and killed new-born babies, and its cult of fire walkers, the Society Islands abound in the fascinating and primitive.

On the more than three score Tuamotu Islands dwell fewer than 4,000 people. The largest of these atolls, Rangiroa, has a lagoon 45 miles long and a third as wide. Pearl oysters abound and the pearls are sold in Tahiti.

The Tubuai or Austral Islands lie in a crescent chain, from northwest to southeast, and support not more than 2,000 Polynesians. Explorers have found certain stone structures on the summit of Rapa, in this group, of considerable interest. The principal island gives its name to the group; Vavitao and Rurutu are the others of appreciable size. The land area of the entire group is but 110 square miles.

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MARQUESANS PREPARING THEIR FAMOUS DISH, "POIPOI."

This is made of fermented breadfruit. It is not to be confused with Hawaii's Poi. The Marquesan "staff of life" has an acrid taste. Together with raw fish it forms the principal diet of the natives.

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The Gold Flood in the United States

THE flood of gold into the United States, which ebbed somewhat after reaching its peak in 1917, set in again in 1921, and there is now probably a greater supply of this precious metal in the country than at any other time in its history. This flow and what the present stock of gold in the United States means in terms of the world supply can be understood even if one is not versed in economics.

Gold, the aristocrat of metals, is truly cosmopolitan, and is found to a greater or less extent in every part of the world from near the equator in Africa, Peru, and Borneo, to the frozen ground of Alaska, Finland, and Siberia. Since the beginning of history and doubtless long before any records were made, gold has largely typified "the world's desire," and it is the only substance which has been received by all races and peoples in exchange for other property and services. It was, in truth, therefore, long before legislation by practically every civilized country made it formally so, the world's standard of value.

Pouring In from Thirty Countries

In the early months of 1921 gold reached the United States from about 30 different countries. Much of this gold doubtless originated in the United States, and there was among it, no doubt, metal from practically every source of gold known to the world. For the gold of the world constitutes practically a single stock held temporarily in many reservoirs; and as exchange rates and other economic and financial conditions change, it flows freely back and forth and across along trade routes, weaving a veritable golden web tying the nations together.

It is not at all improbable that some of the gold that is pouring in on the shores of the United States first left this hemisphere in Spanish galleons after it was torn from the temples of the Incas by the Spanish Conquistadores. Another part may have rested once in the treasuries of the Great Moguls; while beside it is gold fresh from the mines of Australia, the Klondike, or the Rand. For aside from that which is absorbed in the arts or is lost or used in industry, practically all gold these days finds its way to the pots of the assayer and goes to make up pawns in the world's trade.

Of what may be called the relatively common metals, fairly close estimates of the quantity in existence can be made probably only for gold and silver. Even for these two metals satisfactory estimates of production can be made only for the period since the discovery of America. There is nothing on which to base an idea of the gold produced before 1492, but it is safe to assume that because of the few sources and the primitive mining methods the quantity in treasuries and circulation at that time was but a small fraction of the quantity since produced.

Nearly 30,000 Tons of Gold

Since Columbus landed in America, according to statistics assembled by the Director of the Mint, the world production of gold through 1919 amounted to more than three-quarters of a billion Troy ounces. The estimated amount is the equivalent of 29,448.92 tons of the precious metal, occupying 49,100.85 cubic feet, and worth more than seventeen and three-quarter billions of dollars.

This tremendous volume of gold must be measured by a bigger unit than the

only a few miles of narrow lowlands between the sea and the hills or mountains by way of exception, the coast is bold and rugged. Parts of it are what geologists call a "drowned coast," where mountains have sunk so that the water meets their steep slopes. Parts are "uplifted coasts," where mountains once under the sea have partly emerged, and their slopes are still lapped by the waves.

Miles of Bluffs and Promontories

It is the mountainous and bold character of the Pacific coast which sets it off most distinctly from the coast of the Atlantic. From a point 50 miles north of San Francisco one may sail northward for hundreds of miles alongside bluffs and promontories, finding hardly any indentations of importance.

It was this region which made the Spaniards despair, before they discovered San Francisco Bay, of finding that essential to commerce in all ages, a safe, commodious port.

Today the problem has been solved on a small scale at least by the construction of cable tramways extending from the heights to outlying rocks. But lack of ports and the roughness of the country immediately inland have held back the development of much of coastal northern California.

An Inland Sea of Countless Ports

North of the main bulge of the Pacific coast, Cape Mendocino, small bays are more numerous in California, Oregon, and Washington, and about many of them railroads have been built and considerable commercial development has taken place. Finally, at the mouth of the Columbia River, over 500 miles north of the Golden Gate, a good, deep-water harbor is reached at Astoria. Ocean vessels ascend the river to Portland, nearly 100 miles inland.

More than 850 miles north of San Francisco is the 10-mile-wide Strait of Juan de Fuca, the entrance to Puget Sound, the great sunken valley, which carries deep water for more than a hundred miles into the heart of the State of Washington, and affords many miles of matchless land-locked harbors. The center of the entrance to the Strait of Juan de Fuca is the northern boundary on the Pacific of the United States proper.

The "Drowned Coast" of the North

After an interval of nearly 600 miles where British Columbia fronts on the Pacific, the Pacific coast again becomes territory of the United States as the southernmost point of Alaska is reached. For more than a thousand miles to the roots of the Alaska peninsula the waters of the Pacific bathe the shores of this territory, and for an even greater distance the long arm of the peninsula and the Aleutian Islands off its point sweep out into the ocean.

Practically all of this seaboard is a "drowned coast," rugged beyond description, with countless bays, gulfs, islands, and channels. When all these convolutions are counted Alaska has more than 15,000 miles of coast line. The shores south of the peninsula are, for the most part, heavily wooded, often to the very water's edge. Snow-clad mountains tower above ships as they sail through the inland passages, and glaciers discharge a never-ending succession of icebergs into some of the bays.

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The Brown Mountain Light

TIRED professors and business men who sought surcease from their sorrows in the mountainous regions of western North Carolina have during the past few summers given up some of their much-needed hours of sleep to chase what most of them believed to be nothing more than a phantom, or the witch fires of some maker of mountain dew. However, the Brown Mountain Light is now coming into its own as an accredited electrical phenomenon.

Brown Mountain lies seventeen miles from Blowing Rock in the Blue Ridge Mountains in the western part of the State, and, though plainly visible from the resort, is in an uninhabited and sparsely wooded section. Suddenly and without warning a light sometimes blazes out on the crest of the mountain, slowly moves down its side and then fades out; sometimes it seems to rise from the top of the mountain and hang suspended in the air where it fades.

A Wraith of Infinite Variety

It has as many whims and moods as a temperamental artist, sometimes appearing several times during one night, now stationary, now slow, again swift in its flight, and sometimes it cannot be seen for a comparatively long period of time, but it usually is most active when the sky is clearing after a rain. Those who have studied it in all its guises say that it often is not unlike the star from a bursting sky-rocket, though much brighter, and that it is sometimes red and sometimes yellow, due probably to the condition of the atmosphere.

Scientists were at first prone to cavil at the stories which came out of the mountains with the tourists, thinking perhaps that locomotive headlights or wily mountaineers were playing tricks on active imaginations, but today Dr. W. J. Humphreys, physicist of the United States Weather Bureau, and other meteorologists of note believe that there occurs around the mountain's crest a brush discharge of lightning, similar to the famous Andes lightning, or the St. Elmo's fire, which gave rise among the ancient Greeks to the myth of Castor and Pollux.

That glow which accompanies the slow discharge of electricity to the earth from the atmosphere, in southern climates, during thunderstorms, seen on the tops of masts, spires, or other pointed objects was named St. Elmo's fire by sailors for one of their patron saints, because they felt that when the sign appeared they had nothing further to fear from the storm.

Compared to Andes Display

Perhaps the most remarkable feature of the electrical discharge which takes place either from the earth to the clouds or from the clouds to the earth around Brown Mountain is that it is silent. The same thing is true of the electrical displays in the Andes, which have long been known to scientists and travelers in the South American continent as the Andes lightning. It appears as a silent but very luminous discharge of electricity along the crest of the Cordillera Real in Chile, in a region where thunderstorms are practically unknown.

Its visibility is sometimes very marked, having been noted by the former Director of the Meteorological and Geophysical Institute of Chile, while he was out at sea, more than 300 miles from the main cordillera. The actual discharge,

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gold dollar if its magnitude is to be appreciated. If gold were cast in gigantic "dollars" one foot thick and having a diameter of approximately 18 feet 9 inches, each would weigh 165.85 tons and would be worth $100,000,000. The world gold production since 1492 would make 177 such "dollars" and leave more than half enough for another. If stacked, therefore, these gargantuan coins would form a tower 18 feet 9 inches in diameter, more than 177 feet high. Since 1905 the average annual world production would have added about four and a half of these "dollars" to the stack each year, but in 1918 and 1919, the latest two years for which world statistics are complete, the output would have made less than four of the $100,000,000 pieces each year.

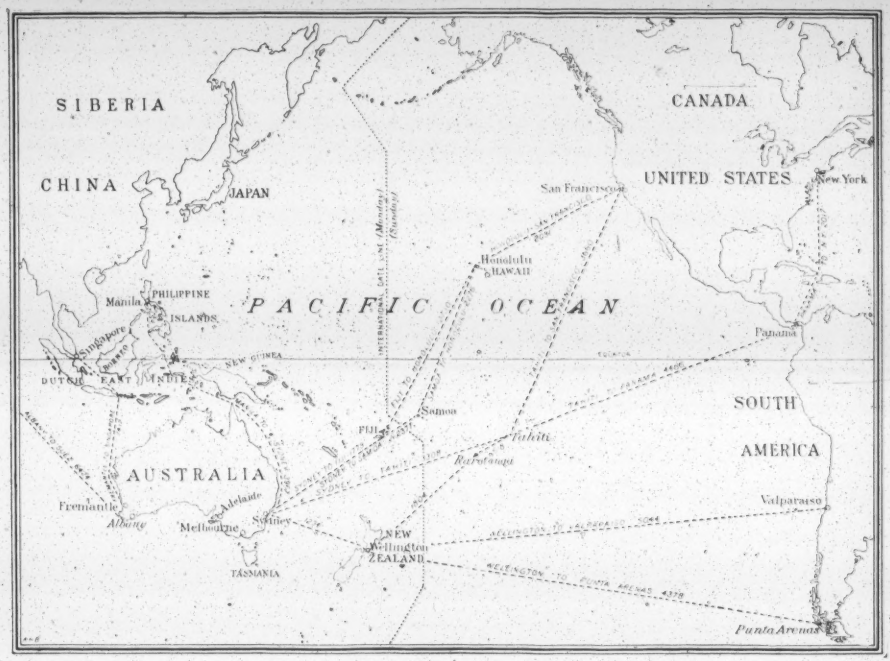
An Eleven Mile Golden Pavement

If the world production of gold since 1492 were made into a curb six inches high and six inches thick it would extend for more than 37 miles, practically the distance between Washington and Baltimore. If spread into a paving surface half an inch thick the same gold would pave an automobile roadway 20 feet wide and slightly over 11 miles long.

Not all the gold produced since the discovery of America is available. Much has been used, destroyed or lost, and much in the form of jewelry or plate is out of circulation and not in treasuries. The best available estimate of the gold in circulation and in treasuries places the amount at $9,000,000,000, or enough to make 90 of the foot-thick "dollars." More than a third of this world treasure is now in the United States, and this is not far below the amount that has been yielded by the mines of the United States.

The United States leads all countries and even some continents in the aggregate amount of gold produced—$3,913,000,000.

Bulletin No. 4, April 17, 1922.



MAP SHOWING POSITION OF TAHITI AND OTHER FRENCH POSSESSIONS (Mentioned in Bulletin No. 2) IN THE PACIFIC

The Panama Canal effected a saving of 10,000 miles in the sailing distance between New York and Tahiti.

in which the mountain acts as a lightning rod between the clouds and the earth, resembles a glimmer, but sometimes the flashes which take place at the point of origin are strong and powerful, then gradually diminish in intensity and finally disappear into the night. The light flashes over the mountain from late spring to fall, and the displays grow less brilliant as one goes farther south.

The same phenomenon has also been noted in the Swiss Alps. One observer, after a long period of hot and dry weather, reported that he had seen a succession of semi-circular flashes which shot up from a mountain in the Bernese Oberland, occasionally lighting the Jungfrau group. Such displays are notable for their likeness in appearance to the aurora, except that they do not reach such heights.

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COPRA, A PRINCIPAL PRODUCT OF THE SOUTH PACIFIC (See Bulletin No. 2), IS MADE BY SPLITTING THE COCONUT IN TWO AND SUN-DRYING IT ON THE GROUND OR ON ROCKS